

NOTES ON LEPIDOPTERA FOUND ON
VANCOUVER ISLAND.

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The following notes culled from my field-diary may probably be of interest to readers of the "Journal," and are intended to give a partial account of captures, of the local Lepidoptera, inhabiting the southern part of Vancouver Island. Although the late Hy. Edwards, and also G. R. Crotch, visited Victoria some twenty years ago, collecting many new genera and species, there has been but little done since that day, towards making the list of species occurring here complete; in fact such an undertaking would entail many years of energetic labor, still as every additional item of information tends to bring us nearer to our desire, it is a pleasure to be able to add my quota.

The year 1892 opened stormy, though with a mild winter as regards temperature, the spring was exceedingly wet, and the summer short, being followed by a very rainy fall. These conditions apparently created a bad entomological year, as regards Lepidoptera, yet, such an excessively moist spring, did an immense amount of good, by nearly exterminating the Vancouver Island Oak-looper (*Ellopia Somniaria* Hulst) thus enabling the oak tree that had suffered for the previous three or four years from its ravages to recover their natural appearance and beauty.

In Victoria District the most common Diurnal was *Vanessa antiopa*, the most rare *Vanessa californica*; *Limenitis lorquini*, and *Neophasia menapia*, were very numerous in certain localities, especially along the Cowitchan River, upon the surface of which were thousands of defunct imagos of both species.

I made three trips to the mountains after *Chionobas gigas*: but only managed to secure two males, consequently was much disappointed in not obtaining ova for Mr. W. H. Edwards of Coalburgh, W. Va.; this year however, I hope to be successful. This beautiful Satyrid is to be found among the Highlands of South Vancouver Island from the East to the West coasts, and is far more common than generally supposed, the time of its appearance varies, according to climatic changes, it appears to breed in the valleys or basins, formed by the hills, and I imagine the female seldom leaves there, while the male after copulation, flies to the

peaks of the surrounding mountains; naturally therefore, the finest specimens are taken in the breeding grounds.

The electric light proved very useful in attracting the Noctuidæ, most of my captures being made through its agency, I found however that while collecting at night was remunerative, most specimens were more or less damaged, I therefore tried early morning, about daybreak (the time when the lights are extinguished) and found (as conjectured) that the imagos settled upon the poles, and fences near by, the ropes used for lowering and hoisting the arc-lamps being a favorite resting place; even when nothing was discernable to the eye, a sudden snap jerk of the rope would knock quite a few to the ground by its violent vibration,—yet as certain species are on the wing only at certain hours of the night it necessitates collecting during the dark hours to secure the most rare of those species.

The Geometrina family is bountifully represented here, and many species have been collected; but as they are not yet determined, I shall mention them together with captures of Noctuidæ during 1893 in my next communication. *Orgyia nova* is yearly abundant in Victoria and its cocoons may be seen everywhere, yet it is hardly the pest one would imagine it to be from its numbers. *Melitea taylori* is also plentiful, the larvæ feeding on (*Plantago lanceolata* the narrow leaved plantain. I report the capture of *Papilio ajax* upon the authority of a brother entomologist at Duncans Station, who took a single specimen and as far as I am informed, the first recorded on this Island. Although not a Coleopterist I have taken many good things, amongst them being *Sciopithes arcuatus*, *Sphærites glabratus*, *Sinodendron rugosum*, *Pachyta spurca*, etc., these have been distributed to Eastern friends. A single specimen of *Ulochetes leoninus*, which is one of the few short winged species of this family in our fauna, was taken at Albert Bay, and is now in the collection of the Natural History Society of British Columbia at Victoria.

I have to thank my friends Mr. B. Neumoegen, of New York, Prof. John B. Smith, of New Brunswick, N. J., Mr. W. H. Edwards, of Coalburgh, W. Va., and Prof. James Fletcher, of Ottawa, for their kindness in determining, and naming specimens, thus enabling me to classify my captures.

The following list comprises the Diurnals taken by myself and others during 1892 and 1893, the Heterocera being my own captures for 1892 only, localities and dates are given where known,

in hopes that at some future time, they may be turned to account by entomologists travelling this way, and who may be induced to pay Victoria a visit.

RHOPALOCERA.

		Locality.	Remarks.
1	<i>Papilio ajax</i> <i>Linn.</i>	Duncans,	Very rare.
2	<i>rutulus</i> <i>Bdv.</i>	Victoria,	Common.
3	<i>turnus</i> <i>Linn.</i>	"	"
4	<i>zolicaon</i> <i>Bdv.</i>	"	Scarce.
5	<i>Parnassius clodius</i> <i>Men.</i>	Goldstream,	Common.
6	<i>Neophasia menapia</i> <i>Fchl.</i>	Cedar Hill,	"
7	<i>Pieris napi</i> <i>Esf.</i>	Victoria,	"
8	<i>pallida</i> <i>Scud.</i>	"	"
9	<i>venosa</i> "	"	"
10	<i>Anthocharis ausonides</i> <i>Bdv.</i>	Beacon Hill,	"
11	<i>sara</i> <i>Bdv.</i>	Victoria,	"
12	<i>stella</i> <i>Edw.</i>	"	Scarce.
13	<i>Colias eurytheme</i> <i>Bdv.</i>	"	"
14	<i>ariadne</i> <i>Edw.</i>	"	"
15	<i>keewaydin</i> <i>Edw.</i>	"	"
16	<i>occidentalis</i> <i>Scud.</i>	Goldstream,	Scarce.
17	<i>philodice</i> <i>Gdt.</i>	Parsons Br.	"
18	var <i>albinic</i> <i>Edw.</i>	"	Rare.
19	<i>Thecla iroides</i> <i>Bdv.</i>	Goldstream,	Common.
20	<i>irus</i> <i>Gdt.</i>	"	"
21	<i>melinus</i> <i>Hbn.</i>	Victoria,	"
22	<i>blenina</i> <i>Hew.</i> } var <i>siva</i> <i>Edw.</i> }	Goldstream,	Scarce.
23	<i>californica</i> <i>Edw.</i>	"	"
24	<i>Lycæna antiacis</i> <i>Bdv.</i>	Victoria,	Common.
25	<i>phileros</i> "	Thetis Lake,	"
26	<i>sæpiolus</i> "	Victoria,	"
27	<i>amyntula</i> "	Goldstream,	"
28	<i>pseudargiolus</i> <i>Bd.-Lec.</i> } var <i>lucia</i> <i>Kirby.</i> }	"	"
29	<i>scudderii</i> <i>Edw.</i>	"	"
30	<i>mellissa?</i> <i>Edw.</i>	"	"
31	<i>Chrysophanus helloides</i> <i>Bdv.</i>	Victoria,	"
32	<i>Danaïs archippus</i> <i>Fabr.</i>	"	Rare.
33	<i>Argynnis bremnerii</i> <i>Edw.</i>	"	Common.
34	<i>epithore</i> <i>Bdv.</i>	"	"

		Locality.	Remarks.
35	<i>Argynnis zerene?</i> <i>Bdv.</i>	Victoria,	Rare.
36	<i>myrina</i> <i>Cram.</i>	“	“
37	<i>rhodope</i> <i>Edw.</i>	Mt. Austin,	Scarce.
38	<i>Melitæa cooperi</i> <i>Behr.</i>	Mt. District,	“
39	<i>rubicunda</i> , <i>Hy. Edw.</i>	Victoria,	“
40	<i>taylori</i> <i>Edw.</i>	“	Common.
41	<i>Phyciodes pratensis</i> <i>Edw.</i>	“	“
42	<i>tharos</i> <i>Dru.</i>	Mt. District,	“
43	<i>Grapta satyrus</i> <i>Edw.</i>	Victoria,	“
44	<i>silenus</i> “	Goldstream,	“
45	<i>zephyrus</i> “	“	“
46	<i>Vanessa antiopa</i> <i>Linn.</i>	Victoria,	“
47	<i>californica</i> <i>Bdv.</i>	“	Rare.
48	<i>millberti</i> , <i>Gdt.</i>	“	Common.
49	<i>Pyrameis atalanta</i> <i>Linn.</i>	“	“
50	<i>cardui</i> “	“	“
51	<i>carye</i> <i>Hbn.</i>	“	Scarce.
52	<i>Limenitis lorquini</i> <i>Bdv.</i>	Cedar Hill,	Common.
53	<i>Cænonympha ampelos</i> <i>Edw.</i>	Victoria,	“
54	<i>Chionobas gigas</i> <i>Bull.</i>	Goldstream,	“
55	<i>Pamphila agricola</i> <i>Bdv.</i>	Victoria,	“
56	<i>nevada</i> <i>Scud.</i>	Shawnigan L.,	Scarce.
57	<i>Nisoniades propertius</i> <i>Lint.</i>	Victoria,	Common.
58	<i>juvenalis</i> <i>Fabr.</i>	Goldstream,	Scarce.
59	<i>icelus</i> <i>Lint.</i>	Langford,	“
60	<i>Carterocephalus mandan</i> <i>Edw.</i>	Lomenos,	“
61	<i>Amblyscirtes vialis</i> <i>Edw.</i>	Goldstream,	“
62	<i>Pyrgus cæspitalis</i> <i>Bdv.</i>	“	“
63	<i>Eudamus pylades</i> <i>Scud.</i>	“	“

HETEROCERA.

	Date.	Locality.	Remarks.
SPHINGIDÆ.			
MACROGLOSSINÆ.			
1		Victoria,	Common.
CHOROCAMPINÆ.			
2	May	“	“
ARCTIIDÆ.			
ARCTINÆ.			
3	June 13,	“	Common.

	Date.	Locality.	Remarks.
4 <i>Arctia superba</i> <i>Stretch</i> .		Victoria,	Scarce.
5 <i>Leptarctia californiæ</i> <i>Walk.</i> { var <i>latifasciata</i> <i>Bull.</i> }	June 10,	"	Common.
6 <i>Pyrrharctia isabella</i> <i>S. & A.</i>	June 25,	"	"
7 <i>Antarctia rubra</i> <i>Neum.</i>	May 20,	"	"
8 <i>Elpis rubra</i> <i>Neum.</i> { var <i>danbyi</i> }	"	"	Rare.
9 <i>Spilosoma virginica</i> <i>Fabr.</i>	"	"	Common.
10 <i>Halisidota maculata</i> <i>Harr.</i>	" 14,	"	"
11 subalpina <i>French.</i>	" 27,	"	Scarce.

NOTODONTIDÆ.

12+ <i>Eumelia danbyi</i> <i>Neum.</i>	April 26,	"	Rare.
13 <i>Pheosia portlandia</i> <i>Hy. Edw.</i>	May 6,	"	Common.
14 <i>Cerura occidentalis</i> <i>Lint.</i>		"	Rare.

BOMBYCIDÆ.

15 <i>Clisiocampa californica</i> <i>Pack.</i>	Aug. 10,	"	Common.
16 <i>Tolyte velleda</i> <i>Stoll.</i>		"	Rare.
17 <i>Gastropacha americana</i> <i>Harr.</i>	May 20,	"	Common.

NOCTUIDÆ.

18 <i>Panthea furcilla</i> <i>Pack.</i>	Aug. 15,	"	"
19 <i>Momophana comstocki</i> <i>Grt.</i>	April 10,	"	Scarce.
20 <i>Harpyia albicoma</i> <i>Str.</i>	June 13,	"	Common.
21 <i>Acronycta felina</i> <i>Grt.</i>	March 26,	"	"
22 oblongata <i>S. & A.</i>	May 30,	Lulu Isld,	"
23 <i>Peridroma occulta</i> <i>Linn.</i>		Victoria,	Rare.
24 <i>Rhizagrotis confusa</i> <i>Smith.</i>	July 22,	"	"
25 <i>Carneades euroides</i> <i>Grt.</i>	Aug. 11,	"	"
26 insignata <i>Walk.</i>		"	"
27 <i>Feltia subgothica</i> <i>Steph.</i>		"	Common.
28 <i>Mamestra liquida</i> <i>Grt.</i>		"	"
29 picta <i>Harr.</i>		"	"
30 egens <i>Walk.</i> { var <i>cinnabarina</i> <i>Grt.</i> }	Sept.	"	"
31 olivacea <i>Morr.</i>	Aug.	"	"
32 cuneata <i>Grt.</i>		"	Scarce.
33 <i>Hadena laterita</i> <i>Hbn.</i>	July 17,	"	Common.
34 devastatrix <i>Brac.</i>	Sept. 10,	"	"
35 albina <i>Grt.</i>	April 13,	"	Scarce.
36 castanea <i>Grt.</i>	June 26,	"	Common.
37 divesta "	July 24,	"	"

	Date.	Locality.	Remarks.
38‡ <i>Polia contadina</i> <i>Smith.</i>	Sept. 13,	Victoria,	Very rare.
39 <i>Eupsephopæctes procinctus</i> <i>Grt.</i>	" 3,	"	Scarce.
40 <i>Trigonophora periculosa</i> <i>Gn.</i>	" 13,	"	Common.
41 <i>Leucania pallens</i> <i>Linn.</i>	" 2,	"	"
42 <i>lapidaria</i> <i>Grt.</i>	" 7,	"	Scarce.
43 <i>Taniocampa pacifica</i> <i>Harv.</i>		"	Rare.
44 <i>alia</i> <i>Gn.</i>	April 15,	"	Common.
45* <i>ferrigera</i> <i>Smith</i>	" 10,	"	"
46 <i>Stretchia normalis</i> <i>Grt.</i>		"	Rare.
47 <i>plusiiformis</i> <i>Hyl-Edw.</i>	April 9,	"	Scarce.
48 <i>Metalepsis cornuta</i> <i>Gr.</i>	" 26,	"	"
49 <i>Zotheca tranquila</i> "	" 11,	"	Rare.
50 <i>viridifera</i> "	" 11,	"	Common.
51 <i>Orthosia crispa</i> <i>Harv.</i>		"	Scarce.
52 <i>Scoliopteryx libatrix</i> <i>Linn.</i>	Sept. 28,	"	Common.
53 <i>Litholomia napæa</i> <i>Morr.</i>	April 10,	"	"
54 <i>Xylina oregonensis</i> <i>Harv.</i>	March 15,	"	Scarce.
55 <i>pexata</i> <i>Grt.</i>	April 10,	"	"
56 <i>Xylomiges hiemalis</i> <i>Grt.</i>	March 15,	"	Common.
57 <i>crucialis</i> <i>Harv.</i>	April 12,	"	"
58 <i>patalis</i> <i>Grt.</i>	June 27,	"	Scarce.
59* <i>pulchella</i> <i>Smith.</i>	May 6,	"	"
60‡ <i>candida</i> "	April 10,	"	Common.
61‡ <i>cognata</i> "	" 3,	"	"
62 <i>Pleroma obliquata</i> <i>Smith.</i>	March 19,	"	Rare.
63* <i>apposita</i> "	April 15,	"	"
64 <i>Calocampa nupera</i> <i>Lint.</i>		"	Common.
65‡ <i>Rancora strigata</i> <i>Smith.</i>	June 25,	"	Very rare.
66 <i>Behrensia conchiformis</i> <i>Grt.</i>	April 1,	"	Scarce.
67 <i>Plusia corrusca</i> <i>Strk.</i>	Sept. 1,	"	"
68 <i>Heliothis dipsaceus</i> <i>Linn.</i> } <i>var phlogophagus</i> <i>G. & R.</i> }		"	"
69 <i>Drasteria cærulea</i> <i>Grt.</i>	May 10,	"	"
70 <i>Euclidia cuspeida</i> <i>Hbn.</i>	June 17,	"	"

† Nov. gen. n. sp.

‡ N. sp.

* N. var.

